

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.: 10/689,465 Confirmation No.: 4146
Applicant: Clark et al.
Filed: October 20, 2003
Art Unit: 2833
Examiner: Gushi, Ross N.
Title: CLAMPING APPARATUS FOR CONNECTING GROUND WIRE TO
GROUNDING MEMBER

Docket No.: 050846/298550
Customer No.: 00826

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF UNDER 37 CFR §41.37

This Appeal Brief is filed pursuant to the “Notice of Appeal to the Board of Patent Appeals and Interferences” filed May 26, 2006.

1. **Real Party in Interest.**

The real party in interest in this appeal is Consolidated Manufacturing International, LLC, the assignee of the above-referenced patent application.

2. **Related Appeals and Interferences.**

There are no related appeals and/or interferences involving this application or its subject matter.

3. **Status of Claims.**

Claims 9, 11-23 and 25-27 are pending in the application and all claims stand rejected as unpatentable over a combination of prior art references as set forth in greater detail below.

Claims 1-8, 10 and 24 were previously cancelled. The prior art rejection of all pending claims is appealed herein.

4. **Status of Amendments.**

All claim amendments presented during prosecution were entered and are set forth in the clean copy of the pending claims appended to the brief.

5. **Summary of Claimed Subject Matter.**

The present invention provides a clamping apparatus for electrically connecting a ground wire to a grounding member. Independent Claim 9 recites a clamping apparatus for electrically connecting at least a first ground wire to a grounding member, as discussed, for example, at page 4, lines 16-17, and as shown, for example, in Figure 1. Such a clamping apparatus comprises a bottom clamping member having a bottom medial portion, and first and second threaded holes on first and second sides of the bottom medial portion for accepting first and second screws, respectively, wherein the first and second threaded holes are disposed along first and second longitudinal axes, respectively, as discussed, for example, at page 4, lines 18-30, and as shown, for example, in Figure 1. A top clamping member is discrete with respect to and cooperates with the bottom clamping member, and comprises **a top medial portion for cooperating with the bottom medial portion to define a grounding member axis**, wherein the top clamping member comprises first and second holes on first and second sides, respectively, of the top clamping member for alignment with the first and second threaded holes of the bottom clamping member, as discussed, for example, at page 4, lines 18-30, and as shown, for example, in Figure 1. A trough comprises a base wall and opposing first and second side walls, wherein **the trough is integral with the top clamping member opposite the bottom clamping member**, as discussed, for example, at page 5, lines 16-21, and as shown, for example, in Figure 1. The first side wall defines **a threaded hole for receiving a set screw in threaded engagement therewith, wherein the threaded hole extends along a third longitudinal axis through the first side wall and toward the second side wall**, as discussed, for example, at page 5, lines 21-23, and as shown, for example, in Figure 1. **The third longitudinal axis intersects at least substantially**

perpendicularly with at least one of the first and second longitudinal axes, as discussed, for example, at page 5, lines 21-23, and as shown, for example, in Figure 1. The trough defines an opening between the first and second side walls for receiving a first ground wire, as discussed, for example, at page 5, lines 23-25, and as shown, for example, in Figure 1. The opening further defines **a ground wire axis parallel to the grounding member axis**, whereby the first ground wire can be secured in the trough against the second side wall by the set screw, as discussed, for example, at page 5, lines 23-25, and as shown, for example, in Figure 5.

Independent Claim 18 is directed to a clamping apparatus for electrically connecting at least a first ground wire to a grounding member, as discussed, for example, at page 4, lines 16-17, and as shown, for example, in Figure 1. Such a clamping apparatus comprises a bottom clamping member having a bottom medial portion, and first and second threaded holes on first and second sides of the bottom medial portion for receiving first and second screws, respectively, wherein the first and second screws are disposed along first and second longitudinal axes, respectively, as discussed, for example, at page 4, lines 18-30, and as shown, for example, in Figure 1. A top clamping member is discrete with respect to and cooperates with the bottom clamping member, and comprises **a top medial portion for cooperating with the bottom medial portion to define a grounding member axis**, wherein the top clamping member comprises first and second holes on first and second sides, respectively, of the top clamping member for receiving the first and second screws, as discussed, for example, at page 4, lines 18-30, and as shown, for example, in Figure 1. A trough comprises a base wall and opposing first and second side walls, wherein **the trough is integral with the top clamping member opposite the bottom clamping member**, as discussed, for example, at page 5, lines 16-21 and as shown, for example, in Figure 1. **The trough defines an opening between the first and second side walls, wherein the opening further defines a ground wire axis parallel to the grounding member axis**, as discussed, for example, at page 5, lines 17-25, and as shown, for example, in Figure 5. **A threaded hole is defined by the first side wall for threadedly engaging a set screw disposed along a third longitudinal axis, with the third longitudinal axis intersecting at least one of the first and second longitudinal axes above the first or second screw**, as discussed, for example, at page 5, lines 19-23, and as shown, for example, in Figure 1.

One exemplary embodiment of a clamping apparatus as claimed in Claims 9 and 18 is shown in Figure 5 of the present application, reproduced below.

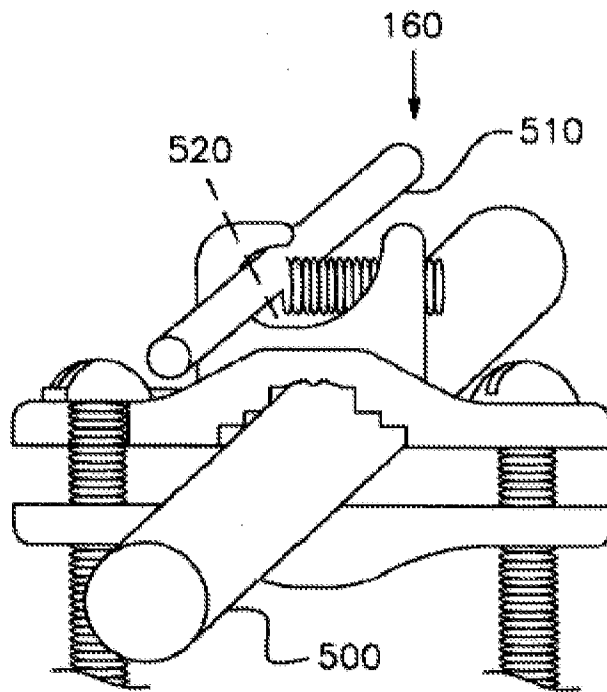


Fig. 5

6. **Grounds of Rejection to be Reviewed on Appeal.**

Claims 9, 11-13, 17-22, 26, and 27 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,988,052 to Mooney et al. in view of U.S. Patent No. 4,189,198 to Reichman, U.S. Patent No. 4,210,374 to Churla, and/or U.S. Patent No. 4,806,108 to Meinhardt.

Claims 14 and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over the Mooney '052, Reichman '198, Churla '374, and/or Meinhardt '108 patents, in further view of U.S. Patent No. 2,116,776 to Bondeson.

Claims 16 and 26 were rejected under 35 U.S.C. §103(a) as being unpatentable over the Mooney '052, Reichman '198, Churla '374, and/or Meinhardt '108 patents, in further view of U.S. Patent No. 4,159,859 to Shemtov.

Claims 15 and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over the Mooney '052, Reichman '198, Churla '374, and/or Meinhardt '108 patents, in further view of U.S. Patent No. 5,816,844 to Perera.

7. **Argument.**

The Mooney '052, Reichman '198, Churla '374, Meinhardt '108, Bondeson '776, Shemtov '859, and Perera '844 patents, either separately or in combination, **do not** teach, suggest, or provide motivation for the embodiments of the present invention, as claimed in Claims 9 and 18.

Claim Rejections – 35 U.S.C. §103

The Mooney '052 patent discloses an electrical conduit grounding clamp device 10 having a pair of complementary upper and lower cooperating first and second clamp members 13 and 14, a pair of clamp members connecting screws 16 and 17, and a ground cable clamping screw 18. The first clamp member 13 is formed by stamping, and includes a longitudinally extending flat web 19 shaped to provide a medial crown portion 15, having a horizontal flat top section 20 and side sections 21 and 22 oppositely diverging downwardly from the opposite side edges of top section 20. The side sections 21 and 22 terminate at their bottom edges in horizontal coplanar wings 23 and 24. The wing 24 has a bore formed therein engaged by the screw 17. The wing 23 has a bore formed therein engaged by the screw 16, wherein the bore intersects with a transversely extending arcuate slot 27 extending to the edge of web 19 through the corresponding flange 26. Formed from the side section 21 is a relatively short upwardly projecting vertical leg 29 joined to the crown top 20 by a rounded edge end having a saddle shaped top edge 30. Further, formed from the side section 22 and the wing 24 is a relatively long upwardly projecting vertical leg 33 joined to the crown top 20 by a rounded edge opposite the junction thereof with the leg 29. A horizontal lug or arm 34 projects toward the leg 29 from the

top edge of the leg 33 and is joined thereto by a curved edge, and is above the level of the top edge 30 of the leg 29 and overlies the crown top section 20. **The arm 34 has a tapped vertical bore engaged by the cable clamping screw 18.** The confronting edges of arm 29 and the leg 34 are spaced apart a distance somewhat greater than the diameter of the grounding cable 11. The Mooney '052 device is shown in Figure 1 of the Mooney '052 patent, reproduced below.

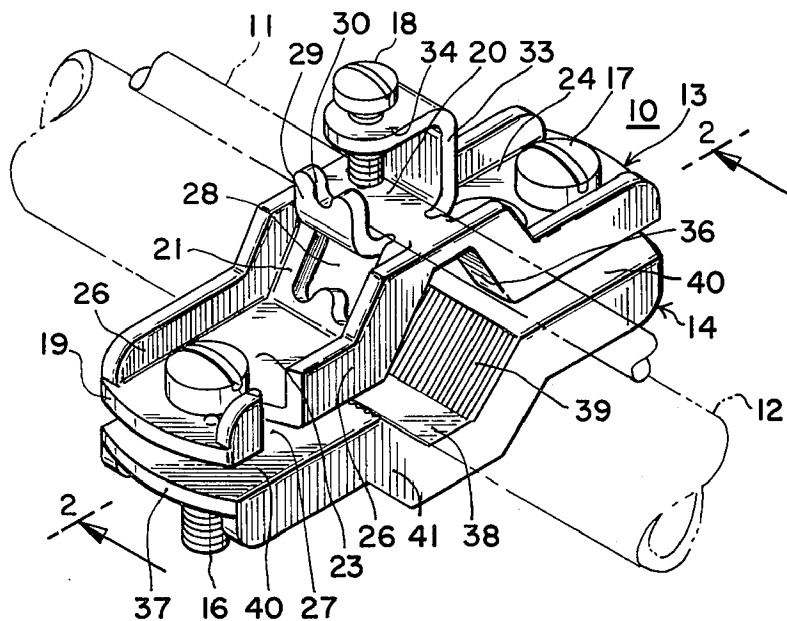
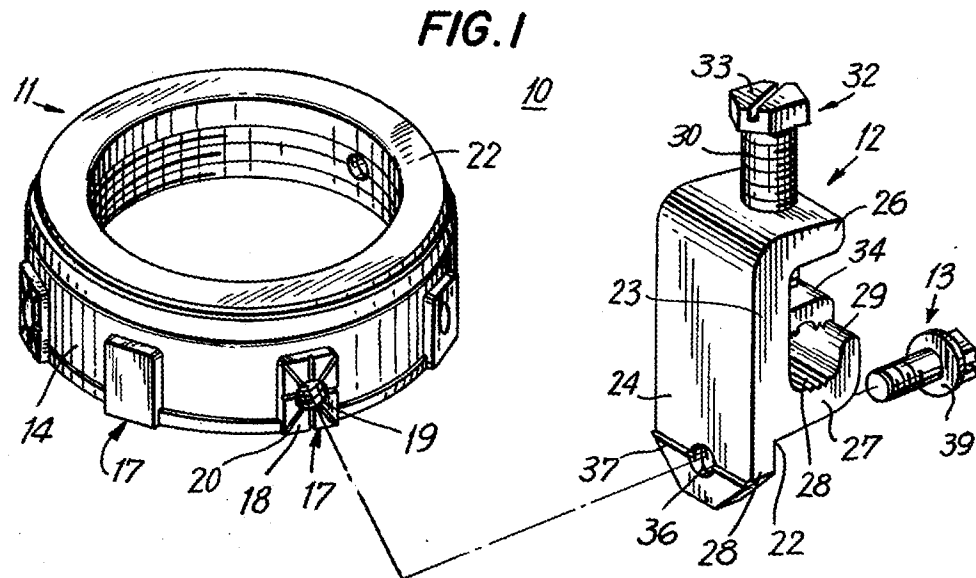


FIG. 1.

The Reichman '198 patent discloses a conduit grounding wire coupling device 10, which includes a conduit coupling collar 11, a cable or wire clamp member 12, and a coupling collar clamp member assembly locking screw 13. The collar member 11 is provided on its outer peripheral surface with a plurality of regularly circumferentially-spaced, radially-projecting, shallow rectangular protuberances or projections 17 having flat outer faces 18 parallel to planes tangent to the outer face of the body member 14. One or more protuberances 17 have central threaded radial bores 19 formed therein and have formed in their outer faces 18 a plurality of grooves 20 of triangular transverse cross section extending diametrically of the respective bores 19. The bores 19 function to couple a clamp member 12 to the collar 11. The clamp member 12 comprises a body member 22, including a longitudinally extending rear wall having a flat planar

outer face 24 and outwardly projecting upper and lower transverse arms 26 and 27, respectively, with the upper arm 26 being along the top of the rear wall 23 and of the same width thereof, and the lower arm 27 being above the bottom of the rear wall 23 and likewise being of the same width thereof. The section of the rear wall 23 below the lower arm 27 defines a tab section, the sides of the lower half of which converge downwardly. The arm 27 terminates at its outer end in a curved upwardly directed lip 29. A threaded vertical bore is centrally formed in the upper arm 26 and engages the threaded shank 30 of a clamp adjusting screw 32 having a slotted hex head 33. A laterally extending horizontal upper jaw member 34 is coupled to the lower end of the threaded shaft 30 so that rotation of the screw 32 in one or the other direction lowers or raises the upper jaw member 34 relative to the lower jaw member defining the lipped arm 27, to close or open the clamp member 12, respectively. In the assembled condition, the rear face of the tab section 28 is superimposed on a face 18 of a grooved protuberance 17, with the ridge 37 engaging a selected groove 20 depending on the desired orientation of the clamp member 12 and with the bores 19 and 36 being in coaxial alignment. **The bolt 13 carrying a washer 39 engages the aligned bores 19 and 36 and is tightened to releasably and rigidly lock the coupling collar 11 and the clamp member 12 in the preselected or desired angular relationship.** The angular relationship between coupling the collar 11 and the wire clamp member 12 may be adjusted merely by loosening the bolt 13, turning the clamp member 12 to bring the ridge 37 into registry with a selected groove 20, and then tightening the bolt 13. The Reichman '198 device is shown in Figure 1 of the Reichman '198 patent, reproduced below.



The Churla '374 patent discloses a set-screw bushing comprising a bushing body 22, for being received on a pipe, and a clamping means 24 secured thereto and formed as an integral unit. The clamping means 24 comprises a C-shaped block 30 defining a mouth 32. The mouth 32 is adapted to receive an electrical conductor 38 longitudinally therein (perpendicularly to the pipe) and to clamp the conductor into place. The bottom of the mouth forms a curved seat 40 for the conductor 38. The edge of the seat is in the form of an upwardly projecting lip 42. The portion 44 of the C-shaped block disposed over the seat 40 includes a threaded opening 46 therein. A threaded lug 48 extends through the opening 46 into the mouth 32 and toward the seat 40. The free end 52 of the lug 48 is adapted to clamp the conductor between itself and the seat 40 to form an electrical connection. The Churla '374 device is shown in Figure 1 of the Churla '374 patent, reproduced below.

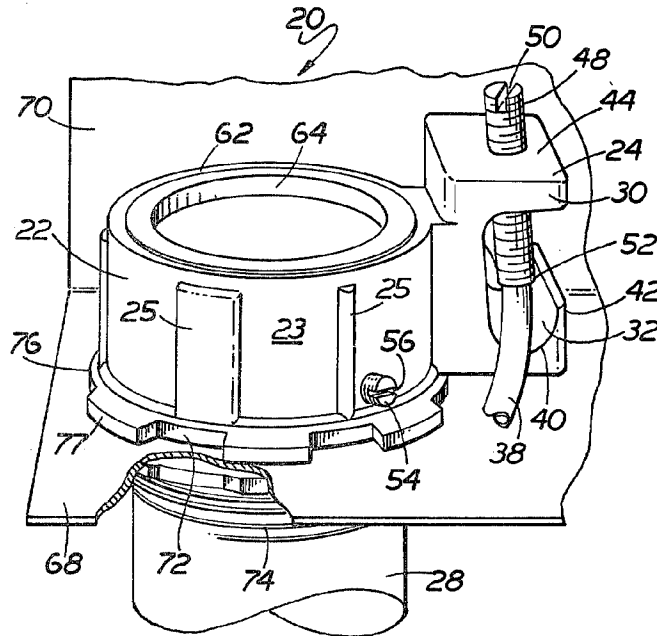
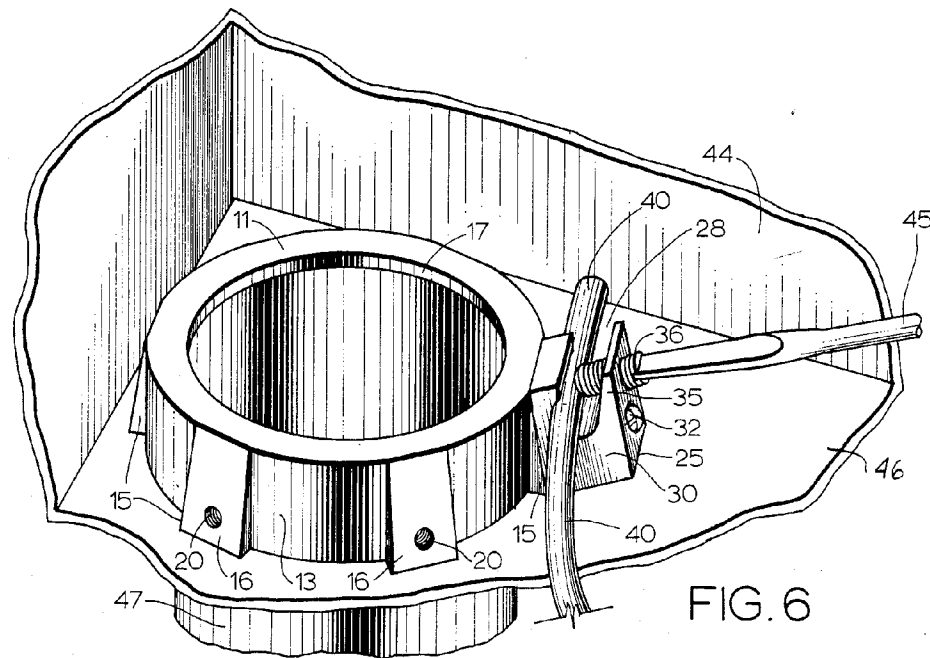


FIG. 1

The Meinhardt '108 patent discloses a grounding bushing 10 comprising an annular band 11 about a central axis coinciding with the axis of a conduit on which the grounding bushing 10 is used. The bushing 10 has a plurality of raised bosses 15 positioned to the exterior of a surface 13, and having upper planar surfaces 16 which incline at an angle of inclination selected to provide a tilt or inclination for easy access to set screws that thereafter mount in threaded openings 20 that are provided in each of the bosses 15. **At least one of the selected ears 15 is positioned so that a grounding lug indicated at 25 can be mounted on the surface 16.** The lug 25 has a bottom surface 26 that mates with the surface 16 and a receptacle 27 adjacent one side thereof opening through a passageway 28 open to the front of the lug. The lug 25 has a throat portion 30 that has a passageway 31 therethrough for rotatably receiving a screw 32. The lug 25 has an overhanging lip 35 that overlies the passageway 28 and this lip 35 has a screw 36 threaded therethrough to engage and bear against a grounding wire 40 that is positioned in the

receptacle 27. The screw 36 is parallel to the screw 32. The Meinhardt '108 device is shown in Figure 6 of the Meinhardt '108 patent, reproduced below.



The Appellants first note that the Federal Circuit has consistently stated that a finding of obviousness requires **a specific teaching, motivation, or suggestion to combine the teachings of individual items of prior art**. See, e.g., *In Re Sang Su Lee*, No. 00-1158 (Fed. Cir. January 18, 2002) (**factual question of motivation to combine** is material to patentability and **could not be resolved on subjective belief and unknown authority**); *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 1352 (Fed. Cir. 1998) (**a showing of a suggestion, teaching, or motivation to combine is an essential evidentiary component** of an obviousness holding); *In re Fritch*, 972 F.2d 1260, 1265 (Fed. Cir. 1992) (Examiner can satisfy burden of obviousness in light of combination only by showing some **objective teaching** leading to the combination); and *In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988) (**evidence of teaching or suggestion essential to avoid hindsight**).

MPEP §2141 explicitly states that, when “applying 35 U.S.C. 103, **the following tenets of patent law must be adhered to:**

(A) **The claimed invention must be considered as a whole;**

(B) **The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;**

(C) **The references must be viewed without the benefit of impermissible hindsight** vision afforded by the claimed invention; and

(D) Reasonable expectation of success is the standard with which obviousness is determined.”

In determining the differences between the prior art and the claims, “the question under 35 U.S.C. 103 is **not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious.**” MPEP §2141.02, “Basic Considerations Which Apply to Obviousness Rejections,” *citing Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenk v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983). (Emphasis added). **The teaching or suggestion to make the claimed combination and reasonable expectation of success must both be found in the prior art, not in applicant’s disclosure.** MPEP §2143 *citing In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Also, “[t]he requirement “at the time the invention was made” is to **avoid impermissible hindsight.**” MPEP §2141.01(III).

With respect to the person of ordinary skill in the art standard applied by the Office Action, it is particularly noted that “[t]here are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.” MPEP §2143.01, “The Prior Art Must Suggest the Desirability of the Claimed Invention,” *citing In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). In this regard, **“[t]he level of skill in the art cannot be relied upon to provide the suggestion to combine references.”** MPEP §2143.01, “The Prior Art Must Suggest the Desirability of the Claimed Invention,” *citing Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999). Furthermore, **“[a] statement that modifications of the prior art to meet the claimed invention would have been “well within**

the ordinary skill of the art at the time the claimed invention was made” because the references relied upon teach that all aspects of the claimed invention were individually known in the art is *not sufficient* to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references.” MPEP §2143.01, “Fact That the Claimed Invention is Within the Capabilities of One of Ordinary Skill in the Art is Not Sufficient by Itself to Establish *Prima Facie* Obviousness,” citing *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993); *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000); and *Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

A. When each of the cited references set forth in the 35 U.S.C. §103 rejections is considered as a whole, the references, either separately or in combination, do not teach or suggest the claimed invention as a whole.

The Appellants traverse the Office’s characterization of the present invention as merely involving “a rearrangement of parts” associated with the configuration of the trough and set screw elements. That is, it appears that the Office considers the particular recitation of the trough and set screw elements, in relation to the clamping member(s), as a “mere rearrangement of parts” and, in doing so, is alleging that any secondary reference showing a “trough” element, that could possibly be oriented in a particular manner, is sufficient to obviate the claims currently pending. However, MPEP §2141.02(I) particularly notes that “[I]n determining the differences between the prior art and the claims, the question under 35 U.S.C. §103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983).” In this alleged characterization of the Appellants’ claimed invention, the Appellants submit that the Office is evaluating a “gist” or “thrust” of present invention, instead of particularly considering the combination of elements, as a whole. In this regard, MPEP §2141.02(II) notes that “[d]istilling an invention down to the “gist” or “thrust” of an invention disregards the requirement of analyzing the subject matter “as a whole.” *W.L. Gore & Associates, Inc. v.*

Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).” That is, the Appellants submit that the focus of the Office solely on the configuration of the trough and set screw elements is in direct contravention to a basic tenet of patent law set forth in MPEP §2141, which explicitly states that, when “applying 35 U.S.C. 103 . . . [t]he claimed invention must be considered as a whole.”

The Appellants respectfully assert that, in applying the cited references to the embodiments of the present invention as claimed in Claims 9 and 18, the claimed invention must be considered as a whole. Claims 9 and 18, **EACH AS A WHOLE**, particularly recite a clamping apparatus, for securing a first ground wire parallel to a grounding member, having discrete top and bottom clamping members joinable through aligned holes disposed along respective first and second longitudinal axes, and a trough integral with the top clamping member, opposite the bottom clamping member, wherein a first side wall of the trough defines a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes.

The Appellants thus assert that the applicable inquiry in an obviousness analysis is whether the combination of references teaches or suggests a clamping apparatus for securing a first ground wire parallel to a grounding member, having a trough integral with the top clamping member, wherein a first side wall of the trough defines a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes used to join the discrete top and bottom clamping members together. The Specification of the present application notes that such a configuration provides, for example, a “laid in” capability for the ground wire after the clamp has been installed on a ground member. In this regard, the Mooney ‘052, Reichman ‘198, Churla ‘374, and Meinhardt ‘108 patents, when each is considered as a whole (as also required under MPEP §2141), do not teach or suggest, either individually or in combination, the claimed invention as a whole.

With respect to the references cited by the Office, the Mooney ‘052 patent discloses a stamp-formed ground clamp having opposing clamping sections, wherein one of the clamping

sections includes a cable clamp, formed from the stamping, having a horizontal leg above the clamping section, wherein the leg includes a tapped vertical bore engaged by a cable clamping screw. As such, the Mooney '052 patent discloses a configuration whereby the “tapped vertical bore” extends parallel to the holes for securing the clamping sections together. The Office inasmuch admits that the Mooney '052 patent **does not** teach or suggest an integral trough configured to have a first side wall defining a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes used to join the discrete top and bottom clamping members together. The Appellants evaluation of the secondary references is then necessarily directed to demonstrating that the secondary references **do not** teach or suggest a trough integral with the clamping member, wherein the trough is integrated such that a first side wall of the trough defines a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes used to join the discrete top and bottom clamping members together.

In this regard, the Reichman '198 patent discloses a monolithic ground bushing having an associated wire clamping member that is “locked to the collar at the selected orientation by a bolt engaging the collar and clamp member rear wall bores.” That is, the Reichman '198 discloses a wire clamping member that is purposely discrete from the ground bushing and is attachable thereto by a bolt such that the orientation of the wire clamping member can be changed. As previously discussed, the Mooney '052 patent discloses a configuration whereby a cable clamp “stamped and shaped from the web” forming an upper clamp section includes a “tapped vertical bore” that extends parallel to the holes for securing the clamping sections together. Accordingly, the Mooney '052 patent **does not** objectively teach or suggest a clamping apparatus having a trough integral with the top clamping member for securing a first ground wire parallel to a grounding member, wherein a first side wall of the trough defines a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with

at least one of the first and second longitudinal axes used to join the *discrete* top and bottom clamping members together. The Reichman '198 patent discloses a wire clamping member that is removable from the discrete monolithic ground bushing and, when installed on the respective monolithic ground bushing, may be rotated into different orientations. As such, the Reichman '198 patent does not teach or suggest that the wire clamping member can be incorporated as an integral part of the ground bushing. Further, the ground bushing disclosed by the Reichman '198 patent does not include separate portions joined together through first and second holes defining respective axes. The Reichman '198 patent, not being faced with the situation of incorporating the wire clamping member into a clamp having opposing portions secured together by screws, does not address the consideration of orienting the wire clamping member with respect to the screws joining the separate portions of the clamp together. Since one of the bases of the Reichman '198 patent is the concept of a selectively oriented wire clamping member, the Appellants submit that the Reichman '198 patent is not pertinent secondary art in this instance, as Claims 9 and 18 particularly recite that the trough is integral with the clamping member. As such, the Reichman '198 patent does not teach or suggest an integral trough having a first side wall defining a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes used to join the *discrete* top and bottom clamping members together.

Therefore, the Appellants submit that the embodiments of the present invention as claimed in Claims 9 and 18 are not taught or suggested by the Mooney '052 and Reichman '198 references, either separately or in combination. The act of replacing the integral cable clamp of Mooney with the discrete and selectively oriented cable clamping member of Reichman in a particular orientation, as alleged by the Office, amounts to a purely mechanistic combination of the cited references, and ignores the particularly recited limitations in the pending claims, as well as the direction of MPEP §2143.01(IV), which notes that an assertion that the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references.

The Office further cites the Meinhardt '108 patent as a secondary reference in the obviousness rejection over the Mooney '052 patent. In this regard, the Meinhardt '108 patent also discloses a monolithic ground bushing having an associated grounding lug that "can be easily connected with a screw" to any one of a plurality of inclined bosses spaced apart about the bushing, no matter where the bushing tightens down on the conduit. That is, the Meinhardt '108 discloses a ground lug that is purposely discrete from the bushing and is attachable by a screw to any of a plurality of bosses about the bushing. All embodiments show the ground lug being attached to the bushing such that the grounding conductor is perpendicular to the conduit. As previously discussed, the Mooney '052 patent discloses a configuration whereby a cable clamp "stamped and shaped from the web" forming an upper clamp section includes a "tapped vertical bore" that extends parallel to the holes for securing the clamping sections together. Accordingly, the Mooney '052 patent does not objectively teach or suggest a clamping apparatus having a trough integral with the top clamping member for securing a first ground wire parallel to a grounding member, wherein a first side wall of the trough defines a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes used to join the discrete top and bottom clamping members together. The Meinhardt '108 patent discloses a ground lug that is removable from the discrete monolithic bushing and, when installed on the respective monolithic bushing, could possibly (though not disclosed) be rotated into different orientations. As such, the Meinhardt '108 patent does not teach or suggest that the ground lug can be incorporated as an integral part of the bushing. Further, the bushing disclosed by the Meinhardt '108 patent does not include separate portions joined together through first and second holes defining respective axes. The Meinhardt '108 patent, not being faced with the situation of incorporating the ground lug into a clamp having opposing portions secured together by screws, does not address the consideration of orienting the ground lug with respect to the screws joining the separate portions of the clamp together. Since one of the bases of the Meinhardt '108 patent is the concept of a ground lug that can be selectively fastened to conduit bushing, the Appellants submit that the Meinhardt '108 patent is not pertinent

secondary art in this instance, as Claims 9 and 18 particularly recite that the trough is integral with the clamping member. As such, the Meinhardt '108 patent **does not** teach or suggest an **integral** trough having a first side wall defining **a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes** used to join the **discrete** top and bottom clamping members together.

As previously discussed, the Office inasmuch admits that the Mooney '052 patent **does not** teach or suggest an integral trough configured to have a first side wall defining **a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes** used to join the **discrete** top and bottom clamping members together. The Appellants thus submit that the embodiments of the present invention as claimed in Claims 9 and 18 are **not** taught or suggested by the Mooney '052 and Meinhardt '108 references, either separately or in combination. The act of replacing the integral cable clamp of Mooney with the discrete ground lug of Meinhardt in a particular orientation, as alleged by the Office, amounts to a purely mechanistic combination of the cited references, and ignores the particularly recited limitations in the pending claims, as well as the direction of MPEP §2143.01(IV), which notes that an assertion that the references relied upon teach that all aspects of the claimed invention were individually known in the art is **not sufficient** to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references.

The Office also cites the Churla '374 patent as a secondary reference in the obviousness rejection over the Mooney '052 patent. In this regard, the Churla '374 patent also discloses a **monolithic** ground bushing having an integral electrical clamp cast as an integral unit of metal, wherein the electrical clamp is oriented with respect to the bushing such that **the electrical conductor received by the electrical clamp is oriented perpendicularly to the pipe on which the bushing is installed**. As previously discussed, the Mooney '052 patent discloses a configuration whereby a cable clamp "stamped and shaped from the web" forming an upper clamp section includes **a "tapped vertical bore" that extends parallel to the holes for securing**

the clamping sections together. Accordingly, the Mooney '052 patent **does not** objectively teach or suggest a clamping apparatus having a trough integral with the top clamping member for securing a first ground wire parallel to a grounding member, wherein a first side wall of the trough defines **a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes** used to join the discrete top and bottom clamping members together. The Churla '374 patent discloses **an electrical clamp that is integral with the discrete monolithic bushing, but wherein the electrical conductor received by the electrical clamp is oriented perpendicularly to the pipe on which the bushing is installed**. The bushing disclosed by the Churla '374 patent **does not** include separate portions joined together through first and second holes defining respective axes. The Churla '374 patent, not being faced with the situation of incorporating the electrical clamp into a clamp having opposing portions secured together by screws, **does not address the consideration of orienting the electrical clamp with respect to the screws joining the separate portions of the clamp together**. As such, the Churla '374 patent **does not** teach or suggest an integral trough **for securing a first ground wire parallel to a grounding member**, and having a first side wall defining **a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes** used to join the discrete top and bottom clamping members together.

As previously discussed, the Office inasmuch admits that the Mooney '052 patent **does not** teach or suggest an integral trough configured to have a first side wall defining **a threaded hole extending along a third axis through the first side wall and toward the second side wall, with the third axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes** used to join the discrete top and bottom clamping members together. The Appellants thus submit that the embodiments of the present invention as claimed in Claims 9 and 18 are not taught or suggested by the Mooney '052 and Churla '374 references, either separately or in combination. The act of replacing the integral cable clamp of Mooney with the integral electrical clamp of Churla in a particular orientation (i.e., using the

electrical clamp of Churla in a different orientation), as alleged by the Office, amounts to a purely mechanistic combination of the cited references, and ignores the particularly recited limitations in the pending claims, as well as the direction of MPEP §2143.01(IV), which notes that an assertion that the references relied upon teach that all aspects of the claimed invention were individually known in the art is **not sufficient** to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references.

The Appellants again note that MPEP §2143 states that “**[t]he teaching or suggestion to make the claimed combination and reasonable expectation of success must both be found in the prior art, not in applicant’s disclosure.**” In this regard, the Reichman ‘198 and Meinhardt ‘108 patents each disclose a wire clamping member that is **discrete, nonintegral, and movable** with respect to a monolithic ground bushing. That is, the wire clamping member disclosed in each of the Reichman ‘198 and Meinhardt ‘108 patents is removable from the respective monolithic ground bushing and, when installed on the respective monolithic ground bushing, may be rotated into different orientations. As such, the Appellants submit that the Mooney ‘052, Reichman ‘198 and Meinhardt ‘108 patents, either separately or in combination, **do not** teach or suggest applying such movable and selectively oriented wire clamping members as disclosed by the Reichman ‘198 and Meinhardt ‘108 patents to an electrical conduit grounding device as disclosed by the Mooney ‘052 patent. Further, the Reichman ‘198 and Meinhardt ‘108 patents **do not** teach or suggest how such movable and selectively oriented wire clamping members could be applied to an electrical conduit grounding device having an integral cable clamp formed through the stamping process required by the Mooney ‘052 patent.

Further, the Churla ‘374 patent discloses a wire clamping member that is integrally formed with respect to a monolithic ground bushing in such a manner that the wire received thereby is oriented **perpendicularly** to the conduit on which the monolithic ground bushing is received. That is, the “side walls” defining the wire clamping member are spaced apart along the axis of the monolithic ground bushing along which the conduit is received. As such, the Appellants submit that the Mooney ‘052 and Churla ‘374 patents, either separately or in combination **do not** teach or suggest applying an integrally formed wire clamping member, configured such that the wire received thereby is oriented parallel to the conduit on which the

monolithic ground bushing is received, to an electrical conduit grounding device as disclosed by the Mooney '052 patent, and neither patent discloses how such a wire clamping member itself, oriented perpendicularly to the conduit-receiving direction, could be formed using the stamping process required by the Mooney '052 patent.

B. Neither *In re Harza* nor *In re Japikse* provides the teaching, suggestion, or motivation to combine the cited references set forth in the 35 U.S.C. §103 rejections.

The Appellants respectfully traverse the allegation by the Office that “variations in the configurations of the trough and set screw would have been a matter of engineering design choice, being a rearrangement of parts without patentable significance” (citing *In re Harza*, 274 F.2d 669 (CCPA 1960) and *In re Japikse*, 181 F.2d 1019 (CCPA 1950)). That is, the Office points to *In re Harza* and *In re Japikse* as providing the teaching, suggestion, or motivation to combine the cited references set forth in the obviousness rejections of the pending claims. This allegation is traversed by the Appellants.

The Appellants respectfully submit that *In re Japikse* **does not** involve an assessment of patentable significance, as it relates to the rearrangement of parts being a matter of engineering design choice, as alleged by the Office. Specifically, the Office alleges that *In re Japikse* involves “the general proposition that some changes and modifications (such as minor rearrangements of structures or duplications of structures) are minor enough such that they are not patentably significant.” However, *In re Japikse* involved a situation where the appellant attempted to overcome a basic reference patent, cited in an obviousness rejection, by alleging inoperativeness of the basic reference patent. *In re Japikse*, 181 F.2d at 1022. In that case, the CCPA ruled that the alleged inoperativeness could be cured by an obvious matter of design and, as such, the basic reference patent could not be eliminated on the ground of inoperativeness. *Id.* at 1022-23. Thus, the Appellants submit that ***In re Japikse* is not relevant** to the present application since the Appellants **do not** seek to eliminate the Mooney '052 reference on the basis of inoperativeness.

The Appellants further submit that *In re Harza* **does not** involve an assessment of patentable significance, as it relates to the rearrangement of parts being a matter of engineering design choice, as alleged by the Office. In particular, the Office alleges that *In re Harza* involves “the general proposition that some changes and modifications (such as minor **rearrangements of structures** or duplications of structures) are minor enough such that they are not patentably significant.” However, the decision in *In re Harza* involves affirmation of a rejection of a claim based **only** upon “the mere duplication of parts” having “no patentable significance unless a new and unexpected result is produced.” *In re Harza*, 274 F.2d at 671. The rejection of other claims was also affirmed, since functional language in those claims was not considered to be of patentable significance. *Id.* **Nowhere in the *In re Harza* decision does the CCPA make reference to an assessment of patentable significance as it relates to the rearrangement of parts being a matter of engineering design choice, as alleged by the Office.** Further, the Appellants submit that ***In re Harza* is not relevant** to the present application since the issues in the rejections **do not** include a mere duplication of parts without patentable significance, or an argument for patentability based upon functional language within a claim.

Thus, the Appellants assert that ***In re Japikse* and *In re Harza* do not make any reference to an assessment of patentable significance as it relates to the rearrangement of parts being a matter of engineering design choice, as alleged by the Office.** As such, since ***In re Japikse* and *In re Harza* do not** stand for the proposition alleged by the Office, the Appellants submit that ***In re Japikse* and *In re Harza* cannot** provide the motivation to combine the references cited by the Office, as alleged.

C. Conclusion

In any instance, notwithstanding that *In re Harza* and *In re Japikse* **do not** stand for the proposition alleged by the Office, the Mooney ‘052, Reichman ‘198, Churla ‘374, and Meinhardt ‘108 patents, either separately or in combination, **do not teach or suggest** the **combination of elements** comprising the clamping apparatus as claimed in independent Claims 9 and 18. These deficiencies of the Mooney ‘052, Reichman ‘198, Churla ‘374, and Meinhardt ‘108 patents are

also applicable with respect to the rejections of Claims 14 and 23, additionally over the Bondeson '776 patent, as well as with respect to the rejections of Claims 16 and 26, additionally over the Shemtov '859 patent, and with respect to the rejections of Claims 15 and 25, additionally over the Perera '844 patent, since Claims 14-16 depend from Claim 9, and Claims 23-26 depend from Claim 18. As such, the Appellants submit that Claims 9, 11-23, and 25-27 are patentable over the Mooney '052, Reichman '198, Churla '374, Meinhardt '108, Bondeson '776, Shemtov '859, and Perera '844 patents cited by the Office, as well as the *In re* Harza and *In re* Japikse decisions of the CCPA.

In summary, the Mooney '052, Reichman '198, Churla '374, Meinhardt '108, Bondeson '776, Shemtov '859, and Perera '844 patents **do not** teach, suggest, or provide motivation for the embodiments of the present invention, as claimed in Claims 9 and 18. Accordingly, in view of these differences between the Appellants' invention and the Mooney '052, Reichman '198, Churla '374, Meinhardt '108, Bondeson '776, Shemtov '859, and Perera '844 patents, it is submitted that the present invention, as defined by Claims 9, 11-23, and 25-27, is patentable over the prior art cited by the Office. A decision from the Board of Patent Appeals and Interferences reversing the final rejection of the pending claims is therefore earnestly solicited.

8. **Claims Appendix.**

The Claims Appendix, attached hereto, includes a clean copy of pending Claims.

9. **Evidence Appendix.**

No evidence has been submitted to the Examiner or relied upon by the Appellants.

10. **Related Proceedings Appendix.**

There are no decisions by a court or the Board in related proceedings.

In re: Clark et al.
Appl . No.: 10/689,465
Filing Date: October 20, 2003
Page 23

Respectfully submitted,

/kevin r. lyn/

Kevin R. Lyn
Registration No. 42,818

CUSTOMER NO. 00826
ALSTON & BIRD LLP
Bank of America Plaza
101 South Tryon Street, Suite 4000
Charlotte, NC 28280-4000
Tel Raleigh Office (919) 862-2200
Fax Raleigh Office (919) 862-2260

ELECTRONICALLY FILED USING THE EFS-WEB ELECTRONIC FILING SYSTEM OF THE UNITED STATES PATENT & TRADEMARK OFFICE ON May 31, 2006.

CLAIMS APPENDIX

1-8. (Cancelled)

9. (Previously Presented) A clamping apparatus for electrically connecting at least a first ground wire to a grounding member, the clamping apparatus comprising:

a bottom clamping member comprising a bottom medial portion and first and second threaded holes on first and second sides of the bottom medial portion for accepting first and second screws, respectively, the first and second threaded holes disposed along first and second longitudinal axes, respectively;

a top clamping member discrete with respect to and for cooperation with the bottom clamping member and comprising a top medial portion for cooperation with the bottom medial portion to define a grounding member axis, the top clamping member comprising first and second holes on first and second sides, respectively, of the top clamping member for alignment with the first and second threaded holes of the bottom clamping member; and

trough comprising a base wall and opposing first and second side walls, the trough being integral with the top clamping member opposite the bottom clamping member, the first side wall defining a threaded hole for receiving a set screw in threaded engagement therewith, the threaded hole extending along a third longitudinal axis through the first side wall and toward the second side wall, the third longitudinal axis intersecting at least substantially perpendicularly with at least one of the first and second longitudinal axes, the trough defining an opening between the first and second side walls for receiving a first ground wire, the opening further defining a ground wire axis parallel to the grounding member axis, whereby the first ground wire can be secured in the trough against the second side wall by the set screw.

10. (Cancelled)

11. (Previously Presented) The clamping apparatus of claim 9, wherein the corresponding first and second holes on first and second sides, respectively, of the top clamping member are slightly

larger in diameter than the threaded holes of the bottom clamping member to allow a screw to pass through each hole in the top clamping member and thread into the corresponding threaded hole in the bottom clamping member, for providing a clamping action around a ground member between the top and bottom clamping members.

12. (Previously Presented) The clamping apparatus of claim 9, wherein the trough opening is adapted for receiving a first ground wire that can be laid-in the trough at an intermediate point on the ground wire.

13. (Previously Presented) The clamping apparatus of claim 9, wherein one or both of the top and bottom medial portions are crowned in a direction away from the respective other medial portion to create an opening between the top and bottom clamping members for accommodating a grounding member.

14. (Previously Presented) The clamping apparatus of claim 13, wherein one or both of the crowned medial portions has a serrated surface within the opening between the top and bottom clamping members for accommodating the grounding member.

15. (Previously Presented) The clamping apparatus of claim 9, further comprising a set screw having a rounded end for applying clamping pressure against the first ground wire.

16. (Previously Presented) The clamping apparatus of claim 9, further comprising a set screw having a sliding wedge affixed to an end of the set screw, the wedge adapted to move through the trough as the set screw is tightened and to engage a first ground wire for applying clamping pressure against the first ground wire in cooperation with the second side wall.

17. (Previously Presented) The clamping apparatus of claim 9, wherein the trough is adapted to accommodate an additional second ground wire laid-in along side a first ground wire in the

trough, the first and second ground wires being mechanically and electrically connected by the clamping pressure of the set screw.

18. (Previously Presented) A clamping apparatus for electrically connecting at least a first ground wire to a grounding member, the clamping apparatus comprising:

a bottom clamping member comprising a bottom medial portion and first and second threaded holes on first and second sides of the bottom medial portion receiving first and second screws, respectively, the first and second screws disposed along first and second longitudinal axes, respectively;

a top clamping member discrete with respect to and for cooperation with the bottom clamping member and comprising a top medial portion for cooperation with the bottom medial portion to define a grounding member axis, the top clamping member comprising first and second holes on first and second sides, respectively, of the top clamping member receiving the first and second screws;

a trough comprising a base wall and opposing first and second side walls, the trough being integral with the top clamping member opposite the bottom clamping member, the trough defining an opening between the first and second side walls, the opening further defining a ground wire axis parallel to the grounding member axis; and

a threaded hole defined by the first side wall for threadedly engaging a set screw disposed along a third longitudinal axis, the third longitudinal axis intersecting at least one of the first and second longitudinal axes above the first or second screw.

19. (Previously Presented) The clamping apparatus of claim 18, wherein the corresponding first and second holes on first and second sides, respectively, of the top clamping member are slightly larger in diameter than the threaded holes of the bottom clamping member.

20. (Previously Presented) The clamping apparatus of claim 18, wherein the trough opening is adapted for receiving a first ground wire that can be laid-in the trough at an intermediate point on the ground wire.

21. (Previously Presented) The clamping apparatus of claim 18, wherein the trough is adapted to accommodate a first ground wire and a second ground wire laid-in along side the first ground wire in the trough.

22. (Previously Presented) The clamping apparatus of claim 18, wherein one or both of the top and bottom medial portions are crowned in a direction away from the respective other medial portion to create an opening between the top and bottom clamping members for accommodating a grounding member.

23. (Previously Presented) The clamping apparatus of claim 18, wherein one or both of the crowned medial portions has a serrated surface within the opening between the top and bottom clamping members for accommodating the grounding member.

24. (Cancelled)

25. (Previously Presented) The clamping apparatus of claim 18, wherein the set screw has a rounded end for applying clamping pressure against a first ground wire.

26. (Previously Presented) The clamping apparatus of claim 18, wherein the set screw further includes a sliding wedge affixed to an end of the set screw, the wedge adapted to move through the trough as the set screw is tightened and to engage a first ground wire for applying clamping pressure against the first ground wire in cooperation with the second side wall.

27. (Previously Presented) The clamping apparatus of claim 18, wherein the trough is adapted to accommodate a second ground wire laid-in along side a first ground wire in the trough, the first and second ground wires being electrically connected by the clamping pressure of the set screw.

EVIDENCE APPENDIX

No evidence has been submitted to the Examiner or relied upon by the Appellant.

RELATED PROCEEDINGS APPENDIX

There are no decisions by a court or the Board in related proceedings.